

NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC/BBMP/KRIDL/W.No.14/CEMENT/2017-18

Date: 20.05.2017

TEST REPORT ON CEMENT

CLIENT	:	Executive Engineer, Dasarahalli Division, BBMP, Bangalore.
AGENCY	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
NAME OF THE WORK	:	Improvements to 1 st cross, 1 st 'A' Cross 1 st 'B' cross, 2 nd 'D' cross, 3 rd cross, 4 th main & 5 th main roads of Defence Colony Bagalagunte in Ward No.14, BBMP, Bangalore.
SAMPLE ID	:	Cement
DATE OF TESTING	:	20.05.2017

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	30.00 %	
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	169 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	472 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

Note:

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- ⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.
- ⇒ Any Query regarding the report must be reported within 15 days from the date of testing.

For Civil Experts Consultants


Authorised Signatory


Authorised Signatory
G. Mohy

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Job No.: CECTC/BBMP/KRIDL/W.No.14/SAND-Gradation/2017-18

: 20.05.2017

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

Client : Executive Engineer, Dasarahalli Division, BBMP, Bangalore.
Agency : Technical Manager (West), KRIDL, BBMP, Bangalore.
Name of Work : Improvements to 1st cross, 1st 'A' Cross 1st 'B' cross, 2nd 'D' cross, 3rd cross, 4th main & 5th main roads of Defence Colony Bagalagunte in Ward No.14, BBMP, Bangalore.
Technical Reference : IS : 2386 Part 1 - 1963 RA-2007
Sample ID : Fine Aggregates
Date of Testing : 20.05.2017

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	91.40	90-100	90-100	90-100	95-100
2.36	77.60	60-95	75-100	85-100	95-100
1.18	58.60	30-70	55-90	75-100	90-100
600 Micron	40.10	15-34	35-59	60-79	80-100
300 Micron	14.60	5-20	8-30	12-40	15-50
150 Micron	5.60	0-10	0-10	0-10	0-15

Remarks : This sample is under Zone-II specific limits.

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For Civil Experts Consultants

G. Mohy
Authorised Signatory

[Signature]

Job No.: CECTC/BBMP/KRIDL/W.No.14//Steel//2017-18

Date: 22.05.2017

TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

Client : Executive Engineer, Dasarahalli Division, BBMP, Bangalore.

Agency : Technical Manager (West), KRIDL, BBMP, Bangalore.

Name of Work : Improvements to 1st cross, 1st 'A' Cross 1st 'B' cross, 2nd 'D' cross, 3rd cross, 4th main & 5th main roads of Defence Colony Bagalagunte in Ward No.14, BBMP, Bangalore.

Sample Identification : 8mm,10mm,12mm,16mm Fe 500 TMT Bars

Technical Reference : IS 1786:2008, IS 1608:2005, IS 1599:1985 (Reaffirmed 2006)

Date of test : 22.05.2017

S.No	Brand	Nominal size (dia in mm)	Mass per metre (kg/metre)	TENSILE STRENGTH		
				0.20 % proof stress/ yield stress (N/mm ²)	Tensile strength (N/mm ²)	Elongation, percent on gauge length
1	Fe 500	8	0.39	541	552	13
2	Fe 500	10	0.62	543	555	15
3	Fe 500	12	0.88	548	564	18.5
4	Fe 500	16	1.59	551	571	19.5

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NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC/BBMP/KRIDL/W.No.14/CUBE/2017-18

Date: 31.05.2017

TEST REPORT ON CONCRETE CUBES

Client : **Executive Engineer, Dasarahalli Division, BBMP, Bangalore.**

Contractor : **Technical Manager (West), KRIDL, BBMP, Bangalore.**

Name of the work : **Improvements to 1st cross, 1st 'A' Cross 1st 'B' cross, 2nd 'D' cross, 3rd cross, 4th main & 5th main roads of Defence Colony Bagalagunte in Ward No.14, BBMP, Bangalore.**

Sample ID : **Cement Concrete**

Size of cubes : **150mmx150mmx150mm**

Cross Sectional Area : **22500 mm²**

Technical Reference : **IS: 516-1959 (Reaffirmed 2008)**

Grade of Concrete : **M₃₀**

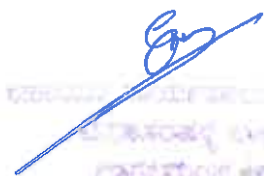
Compressive Strength as on : **7th day**

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm ²)
1	24.05.2017	31.05.2017	8.045	482.3	21.44
2	24.05.2017	31.05.2017	8.152	489.5	21.76
3	24.05.2017	31.05.2017	7.995	491.2	21.83

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Job No.:

CECTC/BBMP/KRIDL/W.No.14/WMM/GR/2017-18

Date : 12.06.2017

**GRADATION FOR WMM
MORTH TABLE-400-11**

Client : **Executive Engineer**, Dasarahalli Division, BBMP, Bangalore.

Agency : **Technical Manager (West)**, KRIDL, BBMP, Bangalore.

Name of Work : Improvements to 1st cross, 1st 'A' Cross 1st 'B' cross, 2nd 'D' cross, 3rd cross, 4th main & 5th main roads of Defence Colony Bagalagunte in Ward No.14, BBMP, Bangalore.

Date of Testing : 12.06.2017

Material : Wet Mix Macadam

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **12370**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	420	420	3.4	96.6	95-100
22.4	4320	4740	38.3	61.7	60-80
11.2	2470	7210	58.3	41.7	40-60
4.75	1630	8840	71.5	28.5	25-40
2.36	1390	10230	82.7	17.3	15-30
0.600	1150	11380	92.0	8.0	8-22
0.075	680	12060	97.5	2.5	0-8

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Job No.: CECTC/BBMP/KRIDL/W.No.14/BM/Gt/2017-18

21.06.2017

**BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS MACADAM MIX
AASHTO T 164 & AASHTO T 30**

CLIENT	Executive Engineer, Dasarahalli Division, BBMP, Bangalore.
AGENCY	Technical Manager(West), KRIDL, BBMP, Bangalore.
NAME OF THE WORK	Improvements to 1st cross, 1st 'A' Cross 1st 'B' cross, 2nd 'D' cross, 3rd cross, 4th main & 5th main roads of Defence Colony Bagalagunte in Ward No.14, BBMP, Bangalore.
SAMPLE I/D	1st cross, 1st 'A' Cross 1st 'B' cross, 2nd 'D' cross, 3rd cross, 4th main & 5th main roads of Defence Colony Bagalagunte in W. No.14
DATE OF TESTING	21.06.2017

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	482	483
3. Weight of Asphalt and Mineral matter Extracted,	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	18	17.00
7. Bitumen content in %	3.60	3.40
8. Average	3.50	

GRADATION AFTER EXTRACTION

SIEVE SIZE	Trail 1				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
26.5	0	0	0	100	100
19	35.9	7.45	7.45	92.55	90-100
13.2	163	33.82	41.27	58.73	56-88
4.75	152	31.54	72.80	27.20	16-36
2.36	63	13.07	85.87	14.13	4-19
0.3	49	10.17	96.04	3.96	2-10
0.075	10.9	2.26	98.30	1.70	0-8

SIEVE SIZE	Trail 2				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
26.5	0	0	0	100	100
19	32.5	6.50	6.50	93.50	90-100
13.2	130	26.00	32.50	67.50	56-88
4.75	163	32.60	65.10	34.90	16-36
2.36	96	19.20	84.30	15.70	4-19
0.3	34.5	6.90	91.20	8.80	2-10
0.075	18.5	3.70	94.90	5.10	0-8

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Job No: CECTC/BBMP/KRIDL/W.No.14/BC/GR/2017-18

22.06.2017

GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

As per IS : 2386 and IRC : SP : 11 - 1984

CLIENT	Executive Engineer, Dasarahalli Division, BBMP, Bangalore.
AGENCY	Technical Manager (West), KRIDL, BBMP, Bangalore.
NAME OF THE WORK	Improvements to 1st cross, 1st 'A' Cross 1st 'B' cross, 2nd 'D' cross, 3rd cross, 4th main & 5th main roads of Defence Colony Bagalagunte in Ward No.14, BBMP, Bangalore.
SAMPLE I/D	1st cross, 1st 'A' Cross 1st 'B' cross, 2nd 'D' cross, 3rd cross, 4th main & 5th main roads of Defence Colony Bagalagunte in Ward No.14
DATE OF TESTING	22.06.2017

GRADATION AFTER EXTRACTION

Sieve Size in mm	Trail 1				Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	Trail 1	
19	0	0	0	100	100
13.2	35	7.45	7.45	92.55	79-100
9.5	40.9	8.71	16.17	83.83	70-88
4.75	75.4	16.06	32.23	67.77	53-71
2.36	62.5	13.31	45.54	54.46	42-58
1.18	73.8	15.72	61.26	38.74	34-48
0.6	48.5	10.33	71.59	28.41	26-38
0.3	39.6	8.43	80.02	19.98	18-28
0.15	25.8	5.50	85.52	14.48	12-20
0.075	40.23	8.57	94.09	5.91	4-10

Sieve Size in mm	Trail 2				Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
19	0	0	0	100	100
13.2	36.4	7.78	7.78	92.22	79-100
9.5	43.5	9.29	17.07	82.93	70-88
4.75	75.8	16.20	33.27	66.73	53-71
2.36	63.5	13.57	46.84	53.16	42-58
1.18	75.8	16.20	63.03	36.97	34-48
0.6	46.1	9.85	72.88	27.12	26-38
0.3	38.2	8.16	81.05	18.95	18-28
0.15	28.5	6.09	87.14	12.86	12-20
0.075	36	7.69	94.83	5.17	4-10

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